Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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LETTER TO THE EDITOR

Aspiration before intramuscular vaccines injection, should the debate continue?☆

Aspirar antes de la inyección de vacunas intramusculares, ¿debería el debate continuar?

Dear Editor,

The COVID-19 pandemic and the constant scrutiny of vaccination that we have witnessed in the media remind us that the intramuscular injection of vaccines is far from being completely standardised. A particular issue that has been the subject of ongoing debate is the appropriateness of aspirating prior to the intramuscular injection of vaccines.

Although aspiration prior to intramuscular injection was standard practice until a few years ago, it is no longer recommended by the World Health Organisation and the Centres for Disease Control and Prevention. Assorted reasons given include the absence of large vessels in the deltoid area, increased pain, lack of evidence in favour of the aspiration technique, and auto-disable syringes (which usually do not allow aspiration) do not appear to have been associated with increased adverse events in mass campaigns.

However, as with all techniques, we should carefully assess the risk-benefit ratio. Because intravascular injection of vaccines is formally contraindicated, the justification for aspiration would be based on the theoretical assumption that it can be seen as a test with the ''needle out of the vessel''. To our knowledge, there are no prospective studies that have examined the incidence of blood aspiration during the intramuscular injection of vaccines. However, a retrospective study reported that 40% of nurses had aspirated blood at least once, and found that ''blood aspiration occurred most frequently in the dorsal-gluteal (15%) and deltoid (12%) areas''.[1] Therefore, the aspiration of blood during intramuscular injection in adults does not appear to be rare or exclusive to the dorsal-gluteal area, which defies the logic of those against aspiration who argue the low calibre of the vessels in the deltoid muscle.

Indeed, several randomised controlled studies have found that aspiration prior to intramuscular injection can lead to increased pain in children.[2] However, this association has not been confirmed in adults.[3]

The association of the AstraZeneca COVID-19 vaccine with vaccine-induced thrombotic thrombocytopenia has raised concerns about vaccine safety. Although this side effect occurs in only 4–10 persons/million vaccinees, its mortality is up to 20%. It is unclear whether aspiration plays a role in this, but there is evidence that intravascular injections of vaccines containing adenoviral vectors are associated in preclinical models with coagulation disturbances, multi-organ failure and death.[4] In addition, we should note that the European Medicines Agency has acknowledged a possible link between inadvertent intravascular injection and thrombotic events associated with the AstraZeneca vaccine, although it also admits that this link has not been formally evaluated.

In terms of efficacy, there may be a risk of a rapid drop in immunogenicity with the intravascular injection of vaccines due to rapid splenic phagocytosis, loss of adjuvant into the muscle or elimination of the depot effect.

Finally, although several reviews have found no adverse effects associated with the aspiration-free technique, these reviews have limitations as they focus almost exclusively on pain, do not assess long-term side effects, do not consider a decrease in vaccine efficacy, and do not include a considerable number of patients: they therefore lack the power to find unusual side effects.[5]

In conclusion, we must reopen the debate about the appropriateness of aspiration and the search for evidence should continue through robust research designs to determine the most appropriate technique, especially after the European Medicines Agency recognised a potential link of this technique to the severe thrombosis phenomena observed in some COVID-19 vaccines. Rigorous experimental studies are needed to study in depth the side effects of intravascular administration of vaccines and to compare the results and complications of both techniques, as well as prospective studies analysing the incidence of blood reflux in the aspiration technique. In short, to ensure that the safest and most effective technique is used to minimise the associated risks, specific protocols with solid scientific evidence must be agreed upon to allow standardisation of practice so that it is not left to the discretion of the individual professional.

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Evidence-based practice in mental health☆

Práctica basada en la evidencia en salud mental

Dear Editor,

Personal recovery is a widely accepted model applied to people who suffer from serious mental illnesses, mainly psychosis such as chronic squizophrenia.[1] Although there is a single definition for this concept, the idea has been generalized that people suffering from these disorders, with persistent, significant and disabling-associated symptoms can cope with a fulfilling, meaningful life, get involved in society, maintain their autonomy for taking decisions and also develop their identity beyond the mental illness.[2]

Bearing in mind the recovery model, it was considered essential to assess the personal recovery process, the set of organisational factors that boost resilience and the set of programmes and services fostering the recovery of people with severe mental disorders in Biscay. As a result, the REE study was conducted – an acronym for Recovery Enhancing Environment Measure, in the Mental Health Network of Biscay (RSMB for its initials in Spanish) together with the University of Deusto, with the approval from the ethics committee and informed consent from the patients. The Spanish version of the REE was used, a tool developed by Priscilla Ridgway in the United States,[3] to interview 312 people, a sample stratified by sex, age and type of service, undergoing treatment by our services. One of the main results was that 89.1% of participants agreed that ''*recovering is important for actively participating in the process*''.

As a result of the study the RSMB decided to include the good practice guidelines (GPG) of the RNAO ''person-and-family centred care'' in their candidature as a Centre Committed to Excellence (CCEC®) in 2018. The good practice guideline introduction programme in CCEC® in Spain is driven by the Research Unit in Care (INVESTEN-ISCIII) as the body responsible, the Registered Nurses' Association of Ontario (RNAO), and the Working Group of the Good Practice Implementation Programme in CCEC®/BPSO®. Within the GBP and aligned with the results from the research study recommendation 2.2. was selected: ''*Involve the individual in a participatory model of decision-making, respecting the individual's right to choose the preferred interventions for their health. . . .*''[4] with the aim of incorporating the voice and opinion of patients in the management of services, as well as in their own treatment process through a shared individual care plan (sICP) in two mental health day hospitals (DH).

Participation from health professionals of both DH was 100%. They identified the barriers and facilitators of implementation, drew up a specific plan of action for the selected recommendation, selected strategies for change in practices and adapted them to the community context.[5]

Among the main results of implementation is that in 2 years the people with severe mental disorders who had an sICP increased from 0% to 93.02%.

The existence of programmes like the BPSO which promote specific strategies for encouraging change, improving attention and transforming mental health services, is unquestionably supportive of evidence-based practice. The BPSO programme has helped interdisciplinary teams to work systematically, co-ordinately and cohesively in the implementation of sICP and has enabled the integration of shared decision-making in care activity.

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The Programme for the Implementation of Good Practice Guidelines in Centres Committed to Excellence in Care® is

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